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Remarks

Support for the above-requested amendments to claim 1 is found at least at page 9, lines 6-11. Claim 2 was amended to place the additional components of the slurry in Markush format. In addition, claims 2-4 were amended to remove "CFM" from the preamble of the claims. New claim 14 is supported at least by page 2, lines 1-2 and 6-7, and page 9, lines 1-5. Support for new claim 15 is found at least in Table 3 bridging pages 9 and 10. New claim 16 is supported at least by page 9, lines 7-19. Support for new claim 17 is found at least at page 9, lines 13-19. New claim 18 is supported at least by page 8, lines 2-4 and Table 3. Support for new claim 19 is found at least at page 8, lines 4-5. New claim 20 is supported at least by page 2, lines 10-12, page 7, lines 16-18, page 8, lines 2-3, and Table 2. New claim 21 is supported at least by page 7, lines 18-21. Support for new claim 22 is found at least at page 8, lines 2-4 and Table 2 on page 8. New claim 23 is supported at least by page 7, lines 27-28, page 8, lines 4-5, and Table 2. New claim 24 is supported at least by Table 2. Support for new claim 25 is found at least at page 8, lines 4-5. Claims 5-13 have been canceled without prejudice as being drawn to a non-elected invention. At least claims 2-4 were not amended for any reasons related to patentability. No question of new matter arises and entry of the amendments and new claims is respectfully requested.

Claims 1-4 and 14-25 are before the Examiner for consideration.

Formal Matter

As shown above, Applicants have added new claims 14-25 by amendment (*i.e.*, twelve claims). Additionally, claims 5-13 (*i.e.*, nine claims) have been canceled without prejudice. Because the total number of claims Applicants are submitting for examination (*i.e.*, sixteen claims) is less than the total number of claims permitted by the United States Patent Office without incurring additional fees (*i.e.*, twenty claims), Applicants respectfully submit that no additional filing fees are required for newly added claims 14-25.

In addition, Applicants respectfully submit that there are no fees required for new independent claims 16 and 20 because the total number of independent claims present in the application (*i.e.*, three independent claims) does not exceed the total amount of independent claims permitted without incurring additional fees (*i.e.*, three independent claims). Furthermore, because support for newly added claims 14-25 is found throughout the

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specification, as identified in the opening paragraph of the Remarks, Applicants respectfully submit that these newly added claims do not contain any new matter.

Restriction Requirement

The Examiner asserts that Applicants' traversal of the Restriction Requirement filed on November 7, 2006 was not persuasive. In particular, the Examiner asserts that the search for the non-elected Group II requires a search of pultrusion processing using both a sizing composition and a binder that is not required for elected Group I. The Examiner concludes that a search of the different inventions would provide a serious burden, and, as a result, the Restriction Requirement has been made final.

In response to the finality of the Restriction Requirement, Applicants have canceled claims 5-13 without prejudice.

Rejection Under 35 U.S.C. §102(b)

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,120,780 to Martino, *et al.* ("Martino"). The Examiner asserts that Martino discloses an aqueous composition that includes polyvinyl acetate, an organosilane such as gamma-methacryloxypropyltriethoxy silane and 3-aminopropyltriethoxy silane, and surfactants. It is further asserted that acetic acid is used to adjust the pH to 5-6.5.

In response to this rejection, Applicants respectfully direct the Examiner's attention to independent claim 1 and submit that claim 1 defines a binder slurry for a continuous filament mat used in a phenolic pultrusion system that is not taught within Martino. Martino teaches an aqueous glass fiber sizing composition that contains a polyvinyl acetate film former and an organosilane lubricant. (*See, e.g.*, column 2, lines 41-44 and lines 60-61). The organosilane compounds used in the sizing composition may be prepared by reacting selected silane compounds with organo compounds having a long chain hydrocarbon group. (*See, e.g.*, column 2, lines 60-64). It is desired that the pH of the sizing composition range from about 2 to 7. (*See, e.g.*, column 6, lines 30-34). Other conventional glass forming size additives such as plasticizers, surfactants, emulsifiers, antistatic agents, and wetting agents may be included in the sizing composition.

Applicants respectfully submit that Martino does not teach the presence of a polyvinyl acetate/silane copolymer. In order for a reference to be anticipatory, each and every element

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of the claimed invention must be present within the four corners of the cited reference. Because Martino does not teach a binder slurry for a continuous filament mat used in a phenolic pultrusion system that includes a polyvinyl acetate/silane copolymer, Applicants respectfully submit that Martino is not an anticipatory reference. Therefore, Applicants submit that independent claim 1 is not anticipated by Martino and respectfully request that this rejection be reconsidered and withdrawn.

Rejection Under 35 U.S.C. §102(b)

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,818,779 to Witucki, *et al.* ("Witucki"). The Examiner asserts that Witucki teaches a composition that has a pH from 4-5. In addition, it is asserted that the composition includes an adhesion promoter and a water borne emulsion adhesive based on a polyvinyl acetate resin. The Examiner asserts that the composition may also include surfactants and defoamers.

In response to this rejection, Applicants respectfully direct the Examiner's attention to independent claim 1 and submit that claim 1 defines a binder slurry for a continuous filament mat used in a phenolic pultrusion system that is not taught within Witucki. Witucki teaches a composition that contains a polyvinyl acetate resin adhesive, an adhesion promoter selected from a particular group of alkoxysilanes, and optionally, a plasticizer. (*See, e.g.*, column 1, lines 39-42, line 49 to column 2, line 12, and lines 20-26). The adhesion promoter may contain up to about 80 percent by weight of a plasticizer. (*See, e.g.*, column 3, lines 53-55). Additionally, the polyvinyl acetate resin may include an external plasticizer. (*See, e.g.*, column 2, lines 40-42). It is preferred that the alkoxysilane comprise from about 1.0 to about 2.5 percent by weight of the composition. The compositions defined within Witucki may be used in various bonding applications, such as to bond cellulosic substrates. (*See, e.g.*, column 5, lines 13-18).

Applicants respectfully submit that Witucki does not teach the presence of a polyvinyl acetate/silane copolymer. In order for a reference to be anticipatory, each and every element of the claimed invention must be present within the four corners of the cited reference. Because Witucki does not teach a binder slurry for a continuous filament mat used in a phenolic pultrusion system that includes a polyvinyl acetate/silane cobinder, Applicants respectfully submit that Witucki is not an anticipatory reference. Accordingly, Applicants

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submit that independent claim 1 is not anticipated by Witucki and respectfully request reconsideration and withdrawal of this rejection.

Rejection Under 35 U.S.C. §103(a)

Claims 2 and 3 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,818,779 to Witucki, *et al.* ("Witucki") in view of U.S. Patent No. 5,120,780 to Martino, *et al.* ("Martino"). The Examiner asserts that it would have been obvious to one of ordinary skill in the art to include a non-ionic surfactant, a defoamer, water, and an organic acid in Witucki's composition because (1) Witucki teaches using a polyvinyl acetate emulsion adhesive having a pH of 4-5, (2) Martino suggests using acetic acid to obtain a pH of 2-7 for an aqueous composition that includes polyvinyl acetate, and (3) Witucki suggests including surfactants and defoamers in the composition. It is asserted that the use of a non-ionic surfactant is a well-known and conventional type of surfactant.

In response to this rejection, Applicants respectfully direct the Examiner's attention to the amendments to independent claim 1 and submit that claim 1 defines a binder slurry for a continuous filament mat used in a phenolic pultrusion system that is not taught or suggested within Witucki or Martino. Applicants submit that because the compositions of Witucki and Martino are discussed in detail above, the compositions of Witucki and Martino will not be discussed in detail with respect to this rejection for purposes of brevity.

Applicants respectfully submit that neither Witucki nor Martino teach or suggest a binder slurry for a continuous filament mat that includes a phenolic compatible silane and a polyvinyl acetate/silane copolymer. Although Witucki teaches a water-borne emulsion based on a polyvinyl acetate resin and Martino teaches a sizing composition that includes a polyvinyl acetate film former, there is no teaching or suggestion of a polyvinyl acetate/silane copolymer binder as a component in a binder slurry within the four corners of either Witucki or Martino. In fact, both Witucki and Martino are silent with respect to the presence of a polyvinyl acetate/silane copolymer in a binder slurry as claimed in amended claim 1. As such, it is respectfully submitted that the combination of the teachings of Witucki and Martino would not result in the inventive binder slurry of claim 1.

In addition, Applicants submit that there is no motivation for one of skill in the art to arrive at the presently claimed invention based on the disclosures of Witucki and/or Martino. To establish a *prima facie* case of obviousness, there must be some motivation, either within

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the reference or in the knowledge of those of skill in the art, to modify the reference or combine the references' teachings, there must be a reasonable expectation of success, and the prior art references must meet all of the claim limitations. (*See, e.g., Manual of Patent Examining Procedure*, Patent Publishing, LLC, Eighth Ed., Rev. 3, August 2005, §2142). It is respectfully submitted that one of ordinary skill in the art would not be motivated to arrive at the binder slurry claimed in claim 1 that includes (1) a phenolic compatible silane and (2) a polyvinyl acetate/silane copolymer based on the teachings of Witucki and Martino because both Witucki and Martino are silent as to any teaching or suggestion of a polyvinyl acetate/silane copolymer binder. As a result, one of ordinary skill in the art would not be motivated to utilize a polyvinyl acetate/silane copolymer in a binder slurry for a continuous filament mat based on the teachings of Witucki and/or Martino. Without some teaching or suggestion, there can be no motivation, and without motivation, there can be no *prima facie* case of obviousness.

In view of the above, it is respectfully submitted that independent claim 1 is not taught or suggested by Witucki and Martino, either alone or in combination, and that claim 1 is therefore non-obvious and patentable. Because claims 2 and 3 are dependent upon claim 1, which is not taught or suggested by Witucki and/or Martino as discussed above and because claims 2 and 3 are dependent upon independent claim 1 and contain the same elements as claim 1, it is submitted that dependent claims 2 and 3 are also not taught or suggested by Witucki and/or Martino.

In light of the above, Applicants submit that claims 2 and 3 are non-obvious and patentable over Witucki and Martino and respectfully request reconsideration and withdrawal of this rejection.

Rejection Under 35 U.S.C. §103(a)

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,818,779 to Witucki, *et al.* ("Witucki") in view of U.S. Patent No. 3,655,027 to Reichel ("Reichel"). The Examiner asserts that it would have been obvious to one of skill in the art to use the gamma-aminopropyl trimethoxy silane in the adhesive composition of Witucki since (1) Witucki teaches using an adhesion promoter that includes an alkoxysilane and (2) Reichel teaches gamma-aminopropylalkoxysilanes as being useful as primers and adhesives.

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In response to this rejection, Applicants respectfully direct the Examiner's attention both to the amendments made to claim 1 and to the arguments presented above with respect to the rejection of claims 2 and 3 under 35 U.S.C. §103(a) over Witucki in view of Martino and submit that claim 1, as amended, defines a binder slurry for a continuous filament mat used in a phenolic pultrusion system that is not taught or suggested by Witucki. As discussed above, Witucki does not teach or suggest the presence of a polyvinyl acetate/silane copolymer binder. In fact, Witucki is silent as to any teaching regarding the inclusion of a polyvinyl acetate/silane copolymer in a binder slurry as claimed in amended claim 1. Additionally, Applicants respectfully submit that Reichel does not make up for the deficiencies of Witucki, namely, the utilization of a polyvinyl acetate/silane copolymer in a binder slurry. Therefore, it is respectfully submitted that claim 1, as amended, is not taught or suggested by Witucki. As such, Applicants respectfully submit that claim 1 is non-obvious and patentable over Witucki. Because claim 4 is dependent upon claim 1, which, as discussed above, is neither taught nor suggested by Witucki, and because Reichel adds nothing to the teachings of Witucki with respect to the inclusion of a polyvinyl acetate copolymer binder in a binder slurry for a continuous filament mat used in a phenolic pultrusion process, Applicants submit that claim 4 is not taught or suggested by the combination of Witucki and/or Reichel.

In view of the above, Applicants submit that claim 4 is not obvious over Witucki and/or Reichel and respectfully request that this rejection be reconsidered and withdrawn.

Newly Added Claims 14-19

Although not included in any of the aforementioned rejections, Applicants wish to briefly address the patentability of newly added claims 14-19. Applicants respectfully submit that none of the Examiner's cited references, either alone or in any combination, teach or suggest a binder slurry for a continuous filament mat used in a phenolic pultrusion system that contains (1) a phenolic compatible silane and (2) a polycarboxylic acid/polyhydric alcohol or a self-crosslinking polymer binder as claimed in independent claim 14. Martino, Witucki, and Reichel are silent with respect to the inclusion of a polycarboxylic acid/polyhydric alcohol or a self-crosslinking polymer binder in a binder slurry. Therefore, it is respectfully submitted that none of Martino, Witucki, or Reichel, either alone or in any combination, teach or suggest Applicants' invention as recited in newly added independent

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claim 14. Accordingly, it is submitted that claim 14 is non-obvious and patentable. Because claims 15-19 are dependent upon claim 14 and contain the same elements as claim 14, it is respectfully submitted that claims 15-19 are also patentable over Martino, Witucki, and/or Reichel.

Newly Added Claims 20-25

Although not included in any of the outstanding rejections, Applicants wish to briefly address the patentability of newly added claims 20-25. Applicants respectfully submit that none of the Examiner's cited references, either alone or in any combination, teach or suggest a binder slurry for a continuous filament mat used in a phenolic pultrusion system that contains (1) a phenolic compatible silane and (2) a powdered polymer resin that contains a thermally active cross-linking agent as claimed in independent claim 20. Each of Martino, Witucki, and Reichel are silent with respect to the inclusion of a powdered polymer resin having a thermally active cross-linking agent in a binder slurry. Therefore, it is respectfully submitted that none of Martino, Witucki, or Reichel, either alone or in any combination, teach or suggest Applicants' invention as recited in newly added independent claim 20. Accordingly, it is submitted that claim 20 is non-obvious and patentable. Because claims 21-25 are dependent upon claim 20 and contain the same elements as independent claim 20, it is respectfully submitted that claims 21-25 are also patentable over Martino, Witucki, and/or Reichel.

Conclusion

In light of the above, Applicants believe that this application is now in condition for allowance and therefore request favorable consideration.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

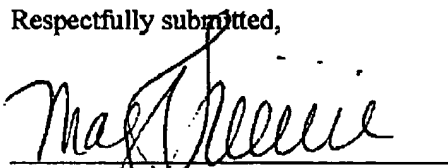
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If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 50-0568 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

Date:

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